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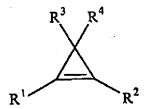
AMENDMENTS TO THE CLAIMS

JUL 18 2007

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Listing of Claims

1. (Currently Amended) A compound of the formula:



wherein:

a) one of R¹ and R³ is H and R², R⁴; and the other of R¹ and R³ are independently selected from H and a group of the formula:

$$-(L)_n-Z$$

wherein:

- i) n is an integer from 1 to 12;
- ii) each L is independently selected from a member of the group D1, D2, E, or J wherein:

D1 is of the formula:

D2 is of the formula:

E is of the formula:

J is of the formula:

$$N=N \qquad N=N \qquad N=C=N \qquad$$

wherein:

A) each X and Y is independently a group of the formula: $-(L)_{m}-Z;$

and

- B) m is an integer from 0 to 8; and
- C) no more than two D2 or E groups are adjacent to each other and no J groups are adjacent to each other;
- iii) each Z is independently selected from:
 - A) hydrogen, halo, cyano, nitro, nitroso, azido, chlorate, bromate, iodate, isocyanato, isocyanido, isothiocyanato, pentafluorothio, or
 - B) a group G, wherein G is an unsubstituted or substituted; unsaturated, partially saturated, or saturated; monocyclic, bicyclic, tricyclic, or fused; 4 to 14 membered carbocyclic or heterocyclic ring system wherein;
 - 1) when the ring system contains a 4 membered heterocyclic ring, the heterocyclic ring contains 1 heteroatom;

- 2) when the ring system contains a 5, or more, membered heterocyclic ring or a polycyclic heterocyclic ring, the heterocyclic or polycyclic heterocyclic ring contains from 1 to 4 heteroatoms;
- 3) each heteroatom is independently selected from N, O, and S;
- 4) the number of substituents is from 0 to 5 and each substituent is independently selected from X;
- b) the total number of non-hydrogen atoms in each compound is 50 or less; and
- c) the total number of heteroatoms in -(L)_n-Z is from 0 to 4; and
- d) either;
 - i) R¹ or R³ contains at least one group G; or
 - ii) at least one L group is an E group; or
 - iii) at least one of R¹, R², R³, and R⁴ contains one to four non-hydrogen atoms and at least one of R¹, R², R³, and R⁴ contains more than four non-hydrogen atoms; ____

and its enantiomers, stereoisomers, salts, and mixtures thereof;

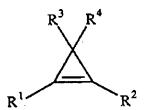
or a composition thereof;

provided that:

- a) -(L)n-Z is other than trimethylsilyl, trimethylsilylsulfonyl or thiol; and
- b) R¹ is other than phenylsulfonyl, phenylthioethyl, diphenylhydroxymethyl, benzo[g]quinolin-7-ol-1-methyl, a malonate derivative, a substituted 3-aminocyclohexenone, a dialkoxybenzylaminocarbonyl; and
- c) R³ is other than 2-phenyl-ethenyl, phenylthio, (4-bromo-2-methylphenyl)carbamic acid N-carbonyl, (4-bromo-2-methylphenyl)carbamic acid ethyl ester N-carbonyl, a malonate derivative, aryloxy, or a dialkoxybenzylaminecarbonyl;

and that at least one of R¹, R², R³, and R⁴ comprises an E, G, or J group.

2. (Withdrawn - Currently Amended) A method of inhibiting an ethylene response in a plant comprising the step of contacting the plant with an effective ethylene response-inhibiting amount of a cyclopropene derivative of the formula:



wherein:

a) one of R¹ and R³ is H and R², R⁴; and the other of R¹ and R³ are independently selected from H and a group of the formula:

$$-(L)_n-Z$$

wherein:

- i) n is an integer from [[1]] 0 to 12;
- ii) each L is independently selected from a member of the group D1, D2, E, or J wherein:

D1 is of the formula:

D2 is of the formula:

E is of the formula:

J is of the formula:

$$N=N$$
 $N=N$
 $N=N$
 $N=C=N$
 $N=C=N$
 $N=C=N$

wherein:

A) each X and Y is independently a group of the formula:

$$-(L)_m-Z;$$

and

- B) m is an integer from 0 to 8; and
- C) no more than two D2 or E groups are adjacent to each other and no J groups are adjacent to each other;
- iii) each Z is independently selected from:
 - A) hydrogen, halo, cyano, nitro, nitroso, azido, chlorate, bromate, iodate, isocyanato, isocyanido, isothiocyanato, pentafluorothio, or
 - B) a group G, wherein G is an unsubstituted or substituted; unsaturated, partially saturated, or saturated; monocyclic, bicyclic, tricyclic, or fused; [[4]] 3 to 14 membered carbocyclic or heterocyclic ring system wherein;
 - when the ring system contains a 3 or 4 membered heterocyclic ring,
 the heterocyclic ring contains 1 heteroatom;
 - 2) when the ring system contains a 5, or more, membered heterocyclic ring or a polycyclic heterocyclic ring, the heterocyclic or polycyclic heterocyclic ring contains from 1 to 4 heteroatoms;

- 3) each heteroatom is independently selected from N, O, and S;
- 4) the number of substituents is from 0 to 5 and each substituent is independently selected from X;
- b) the total number of non-hydrogen atoms in each compound is 50 or less; and
- c) the total number of heteroatoms in -(L)_n-Z is from 0 to 4; and
- d) either;
 - i) R1 or R3 contains at least one group G; or
 - ii) at least one L group is an E group; or
 - iii) at least one of R¹, R², R³, and R⁴ contains one to four non-hydrogen atoms and at least one of R¹, R², R³, and R⁴ contains more than four non-hydrogen atoms;

and wherein at least one of R¹, R², R³, and R⁴ comprises an E, G, or J group and its enantiomers, stereoisomers, salts, and mixtures thereof; or a composition thereof;

- 3. (Withdrawn) The method of claim 2, wherein the ethylene response is one or more of ripening or senescence of flowers, fruits, and vegetables; abscission of foliage, flowers, and fruit; the shortening of life of ornamental plants, cut flowers, shrubbery, seeds, or dormant seedlings; inhibition of growth; stimulation of growth; auxin activity; inhibition of terminal growth; control of apical dominance; increase in branching; increase in tillering; changing the morphology of plants, modifying the susceptibility to plant pathogens such as fungi, changing bio-chemical compositions; abortion or inhibition of flowering or seed development; lodging effects; stimulation of seed germination; breaking of dormancy; hormone effects; and epinasty effects.
- 4. (Withdrawn) The method of claim 2, wherein R^2 , R^3 , and R^4 are hydrogen or R^1 , R^2 , and R^3 are hydrogen.
- 5. (Withdrawn) The method of claim 2, wherein n is from 1 to 7.
- 6. (Withdrawn) The method of claim 2, wherein m is from 0 to 2.
- 7. (Withdrawn) The method of claim 2, wherein:
 - a) each D1 is -CXY-, -CO-, or -CS-;
 - b) each D2 is -NX- or -O-;

- c) each E is -S-,-SiXY-, or -SO₂-;
- d) each X and Y is independently H, halo, OH, SH, -C(O)(C₁-C₄)alkyl, -C(O)O(C₁-C₄)alkyl, -O-(C₁-C₄)alkyl, -S-(C₁-C₄)alkyl, or substituted (C₁-C₄)alkyl; and
- e) each Z is independently H, halo, or G.
- 8. (Withdrawn) The method of claim 2, wherein each G is independently a substituted or unsubstituted; five, six, or seven membered; aryl, heteroaryl, heterocyclyl, or cycloalkyl ring.
- 9. (Withdrawn) The method of claim 8, wherein each G is independently a substituted or unsubstituted phenyl, pyridyl, cyclohexyl, cyclopentyl, pyrolyl, furyl, thiophenyl, triazolyl, pyrazolyl, 1,3-dioxolanyl, or morpholinyl.
- 10.(Original) The method of claim 8, wherein the substituents, when present, are independently selected from 1 to 3 of methyl, methoxy, and halo.